CLAIMS

1. An inflatable airbag module for protecting a vehicle occupant comprising:

an airbag module cover including a substrate surface, an instrument panel adapter, and an airbag housing interlock, the airbag module cover being adapted to be integrated with an instrument panel substrate to provide a surface suitable for receiving a decorative overlay;

an airbag module housing having an airbag case portion and an airbag module cover interlock portion, the module housing being adapted to be coupled to the airbag module cover; and

an airbag cushion configured to be deployed from the airbag module housing.

2. The inflatable airbag module of claim 1, wherein the substrate surface is configured to receive a skin-and-foam overlay to provide a surface suitable for use in the interior of a vehicle.

3. The inflatable airbag module of claim 1, wherein the instrument panel adapter comprises a radial flange extending from the substrate surface of the airbag module cover.

4. The inflatable airbag module of claim 1, wherein the instrument panel adapter comprises a face of the module cover configured to be attached to an instrument panel.

5. The inflatable airbag module of claim 1, wherein the airbag housing interlock comprises a plurality of locking fingers projecting from the module cover that are configured to extend into the airbag module cover interlock of the airbag module housing to join the module cover and the module housing.

6. The inflatable airbag module of claim 5, wherein the module cover interlock of the airbag module housing is configured to receive the locking fingers of the module cover in a locking fashion.

7. The inflatable airbag module of claim 1, wherein the airbag module cover further includes a tear seam.

8. The inflatable airbag module of claim 7, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

9. The inflatable airbag module of claim 7, wherein the tear seam is laser-scored into the airbag module cover.

10. The inflatable airbag module of claim 1, wherein the airbag cushion is a passenger-side airbag cushion.

11. An airbag module cover for enclosing a passenger airbag module, the airbag module cover having a substrate surface configured to receive a decorative overlay, an instrument panel adapter, and a plurality of locking fingers extending from the cover in a direction substantially opposite the substrate surface.

12. The airbag module cover of claim 11, wherein the substrate surface is configured to receive a skin-and-foam overlay to provide a surface suitable for use in the interior of a vehicle.

13. The airbag module cover of claim 12, wherein the airbag module cover further includes a tear seam.

14. The airbag module cover of claim 13, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

15. The airbag module cover of claim 13, wherein the tear seam is laser scored into the airbag module cover.

16. A vehicular instrument panel having an integral airbag module cover comprising:

a primary dashboard panel having a substrate surface configured to receive a decorative overlay and an airbag module cover adapter; and

an airbag module cover having a substrate surface configured to receive a decorative overlay, an instrument panel adapter, and an airbag housing interlock; wherein the airbag module cover may be integrated with the primary dashboard panel and wherein the substrate surfaces of the resulting assembly may be coated with a decorative overlay.

17. The vehicular instrument panel of claim 16, wherein the airbag module cover adapter of the primary dashboard panel comprises an orifice sized to receive the airbag module cover.

18. The vehicular instrument panel of claim 17, wherein the orifice of the airbag module cover adapter of the primary dashboard panel further comprises an adapter channel having a depth sufficient to allow the airbag module cover to nest into the substrate surface of the primary dashboard panel without substantial protrusion.

19. The vehicular instrument panel of claim 17, wherein integration of the primary dashboard panel and the airbag module cover provides a combination substrate surface that is sufficiently even that the application of a decorative overlay results in a substantially even surface with no obvious seams.

20. The vehicular instrument panel of claim 18, wherein the instrument panel adapter of the airbag module cover comprises a radial flange extending from the substrate surface of the airbag module cover.

21. The vehicular instrument panel of claim 18, wherein the instrument panel adapter of the airbag module cover comprises a face of the module cover configured to be attached to an instrument panel.

22. The vehicular instrument panel of claim 16, wherein the substrate surfaces of the primary dashboard panel and the airbag module cover are configured to receive a skin-and-foam overlay.

23. The vehicular instrument panel of claim 16, wherein the airbag housing interlock comprises a plurality of locking fingers projecting from the airbag module cover that are configured to join the airbag module cover with an airbag module.

24. The vehicular instrument panel of claim 16, wherein the airbag module cover further includes a tear seam.

25. The vehicular instrument panel of claim 24, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

26. The vehicular instrument panel of claim 24, wherein the tear seam is laser scored into the airbag module cover.

27. A vehicular instrument panel having an integral airbag module cover comprising:

a primary dashboard panel having a substrate surface and an airbag module cover adapter, the primary dashboard panel being integrally formed with an airbag module cover having a substrate surface, an instrument panel adapter, and an airbag housing interlock; wherein the substrate surfaces of the primary dashboard panel and airbag module cover may be coated with a decorative overlay.

28. The vehicular instrument panel of claim 27, the primary dashboard panel and the airbag module cover provide a combination substrate surface that is sufficiently even to receive a decorative overlay with a substantially even surface with no obvious seams.

29. The vehicular instrument panel of claim 27, wherein the instrument panel adapter of the airbag module cover comprises a radial flange extending from the substrate surface of the airbag module cover.

30. The vehicular instrument panel of claim 27, wherein the substrate surfaces of the primary dashboard panel and the airbag module cover are configured to receive a skin-and-foam overlay.

31. The vehicular instrument panel of claim 27, wherein the airbag housing interlock comprises a plurality of locking fingers projecting from the airbag module cover that are configured to join the airbag module cover with an airbag module.

32. The vehicular instrument panel of claim 27, wherein the airbag module cover further includes a tear seam.

33. The vehicular instrument panel of claim 32, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

34. The vehicular instrument panel of claim 32, wherein the tear seam is laser scored into the airbag module cover.

35. A vehicular instrument panel having an integral airbag module cover comprising:

a primary dashboard panel having a substrate surface configured to receive a decorative overlay and an airbag module cover portion having an airbag housing interlock; wherein the primary dashboard panel may be connected directly to an airbag module housing, and wherein a portion of the primary dashboard panel covers a portion of the airbag module housing.

36. The vehicular instrument panel of claim 35, wherein the airbag housing interlock of the airbag module cover portion comprises at least one locking finger projecting from the airbag module cover to join the airbag module cover with an airbag module housing.

37. The vehicular instrument panel of claim 35, wherein the airbag module cover further includes a tear seam.

38. The vehicular instrument panel of claim 37, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

39. The vehicular instrument panel of claim 37, wherein the tear seam is laser scored into the airbag module cover.

40. A method of assembling an inflatable airbag module and a vehicular instrument panel comprising the steps of:

providing an instrument panel substrate having a substrate surface adapted to receive a decorative overlay and an airbag module cover adapter for receiving an airbag module cover;

providing an airbag module cover having a substrate surface adapted to receive a decorative overlay, and an airbag housing interlock;

placing the airbag module cover into the instrument panel substrate;

applying a decorative overlay to the instrument panel substrate and the airbag module cover; and

attaching an airbag module to the airbag module cover. 28. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 27, wherein the substrate surfaces of the instrument panel substrate and the airbag module cover are configured to receive a skin-and-foam decorative overlay.

41. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 40, wherein the airbag module cover adapter comprises an area of the instrument panel substrate recessed to accommodate the airbag module cover.

42. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 40, wherein the airbag module cover further includes an instrument panel adapter.

43. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 42, wherein the instrument panel adapter comprises a radial flange extending from the substrate surface of the airbag module cover.

44. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 42, wherein the instrument panel adapter comprises a face of the module cover configured to be attached to an instrument panel.

45. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 40, wherein the airbag housing interlock comprises a plurality of locking fingers projecting from the module cover that are configured to extend into the airbag module cover interlock of the airbag module housing to join the module cover and the module housing.

46. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 45, wherein the module cover interlock of the airbag module housing is configured to receive the locking fingers of the module cover in a locking fashion.

47. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 40, wherein the airbag module cover further includes a tear seam.

48. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 47, wherein the tear seam is molded, stamped, or punched into the airbag module cover.

49. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 47, wherein the tear seam is laser-scored into the airbag module cover.

50. The method of assembling an inflatable airbag module and a vehicular instrument panel of claim 40, wherein the airbag cushion is a passenger-side airbag cushion.